Department of Defense

DIRECTIVE

NUMBER 4510.11

October 2, 1995

USD(A&T)

SUBJECT: DoD Transportation Engineering

References: (a) DoD Directive 5160.60, "Highways for National Defense," April 26, 1973 (hereby canceled)
(b) DoD Directive 4510.10, "Railroads for National Defense," May 24, 1985 (hereby canceled)
(c) DoD Instruction 5000.2, "Defense Acquisition Management Policies and Procedures," February 23, 1991
(d) Section 210 of title 23, United States Code
(e) DoD Instruction 6055.4, "Department of Defense Traffic Safety Program," November 15, 1985
(f) Sections 2672 and 2672a of title 10, United States Code

1. PURPOSE

This Directive:

1.1. Replaces references (a) and (b).

1.2. Establishes policy and assigns responsibilities for:

1.2.1. Conducting DoD transportation engineering.

1.2.2. Incorporating effective transportation engineering techniques and characteristics into DoD transportation processes, equipment, and facilities.

1.2.3. Ensuring that DoD transportation engineering interests and infrastructure concerns are considered in civil transportation programs (Federal, State, and local governments, and applicable industry) for the planning, programming,

design, construction, maintenance, and regulation of civil transportation facilities and infrastructure.

2. APPLICABILITY

This Directive applies to the Office of the Secretary of Defense, the Military Departments, the Chairman of the Joint Chiefs of Staff, the Unified Commands, the Defense Agencies, and the DoD Field Activities (hereafter referred to collectively as "the DoD Components").

3. DEFINITIONS

Terms used in this Directive are defined in enclosure 1.

4. POLICY

It is DoD policy to integrate peacetime and mobilization transportation engineering needs into civil and DoD programs to ensure that national defense interests are protected. Responsible Agencies under this Directive, in adherence with the DoD transportation engineering program, shall:

4.1. Incorporate safe, efficient, and effective transportation engineering features in the design, construction, modification, and maintenance of DoD transportation processes, equipment, and facilities.

4.2. Ensure that national transportation policies and programs include DoD transportation engineering interests and infrastructure concerns within the resources of civil programs at Federal, State, and local governmental levels to the maximum extent possible, and are compatible with DoD movement criteria to accomplish the following:

4.2.1. Coordinate defense peacetime and mobilization interests on design, development, and maintenance of highway, mil, port, intermodal, inland waterway, or pipeline facilities with civil transportation agencies.

4.2.2. Develop DoD transportation engineering criteria, procedures, and guidance for consideration in civil transportation engineering programs.

4.3. Ensure that the DoD Component-coordinated transportation engineering interests are included in common-user DoD transportation systems (cargo-carrying

ships, barges, aircraft, railcar cars, materiel and container handling equipment, and highway transporters) construction and modification programs.

4.4. Evaluate and influence the design and development of new or modified DoD equipment, as directed by DoD Instruction 5000.2 (reference (c)).

4.5. Provide assistance to the DoD Components and ensure that DoD transportation engineering practices comply, at a minimum, with approved Federal standards.

5. RESPONSIBILITIES

5.1. The Under Secretary of Defense for Acquisition and Technology shall establish DoD policies governing DoD transportation engineering programs.

5.2. The Commander in Chief. U.S. Transportation Command, shall:

5.2.1. Identify DoD transportation engineering interests in civil transportation programs and ensure coordination with civil transportation agencies and industry.

5.2.2. Represent the Department of Defense in negotiations and discussions with civil transportation agencies and industry concerning common-user transportation engineering matters and integrate defense highway needs and operational requirements into civil highway programs to the maximum extent possible.

5.2.3. Identify DoD Component-coordinated transportation engineering interests in common-user DoD transportation systems construction and modification programs.

5.2.4. Determine DoD common-user defense transportation systems engineering and infrastructure criteria for coordination with modal authorities to achieve the following:

5.2.4.1. Manage the DoD Highways for National Defense Program, in joint cooperation with the Federal Highway Administration, to:

5.2.4.1.1. Identify the Strategic Highway Corridor Network (STRAHNET) and required connector highways and coordinate with Federal and State transportation authorities to establish the minimum defense need for public highways.

5.2.4.1.2. Ensure effective cooperation between DoD, Federal, and State transportation authorities regarding special defense utilization of public highways.

5.2.4.1.3. Establish and coordinate effective design standards and criteria for efficient and safe movement of DoD equipment and materiel on civil highways.

5.2.4.1.4. Ensure DoD cooperation and participation in emergency highway traffic operations.

5.2.4.1.5. Review and analyze DoD access road needs and, when appropriate, those of other Federal Agencies, and certify to the Secretary of Transportation, on behalf of the Secretary of Defense, the civil highway needs of the Department of Defense in accordance with 23 U.S.C. 210 (reference (d)).

5.2.4.1.6. Ensure repair of damages to public roads serving DoD ballistic missile sites when the conditions of reference (d) are met.

5.2.4.1.7. Advise and assist the DoD Components with their resource programming to meet defense access road needs and authorize the expenditure of appropriated funds to the Department of Transportation.

5.2.4.1.8. Promote the DoD highway traffic engineering program.

5.2.4.2. Manage the Railroads for National Defense Program, in joint cooperation with the Federal Railroad Administration, to identify, review, and analyze DoD interests in civil rail lines that include, but are not limited to:

5.2.4.2.1. The Strategic Rail Corridor Network (STRACNET) and civil rail lines important to national defense.

5.2.4.2.2. The joint list of DoD installations and activities requiring civil rail lines to accomplish their assigned missions.

5.2.4.2.3. Rail line criteria for oversize and/or overweight defense shipments.

5.2.4.2.4. Readiness criteria for maintenance of civil rail lines important to national defense.

5.2.4.2.5. Impact assessments of railroad abandonments,

bankruptcies, and mergers on national defense interests and advise the DoD Components of options to authorized civil rail line abandonment.

5.2.4.2.6. Assist and advise the DoD Components regarding their financial assistance to protect essential civil sector rail line(s) when the conditions of enclosure 2 are met.

5.2.4.2.7. Solicit civil sector support and consideration of DoD needs for civil rail lines and integration to the extent possible into policy, plans, standards, programs, and regulations of the railroad industry and Government Agencies.

5.2.4.3. Manage and conduct transportation engineering programs for analyses of common-user defense-important seaports and intermodal facilities to assess their infrastructure and operational capability to meet defense peacetime and mobilization movement needs.

5.2.4.4. Monitor modal legislative processes to ensure that DoD transportation engineering interests are protected.

5.2.4.5. Conduct periodic identification and evaluation of defense-important common-user modal facilities (seaports, pipelines, inland waterways, etc.), and assess their capabilities to meet defense peacetime and mobilization movement needs.

5.2.4.6. Ensure that the DoD Component-coordinated transportation engineering interests are considered in defense common-user transport construction and modification programs.

5.2.4.7. Promote, among the DoD Components, the consideration of American National Standards Institute (ANSI) and International Standards Organization (ISO) criteria in all transportation engineering planning.

5.2.4.8. Evaluate the impact of Defense Transportation System transportation engineering improvements on defense movement capabilities.

5.2.4.9. Assess the need and take necessary action to design and develop computer software and automated systems to support DoD transportation engineering and related informational requirements.

5.2.4.10. Publish multi-Service regulations for the Highways and Railroads for National Defense Programs.

5.3. The Secretary of the Army shall:

5.3.1. Ensure the incorporation of effective, efficient, and safe transportation engineering techniques and characteristics into DoD installation and activity transportation processes, equipment, and facilities by providing appropriate engineering consultation and the recommendation of improvements in accordance with DoD transportation engineering policies.

5.3.2. Promote incorporation of appropriate Federal standards, at a minimum, into the design and construction of DoD Component highway facilities as directed by DoD Instruction 6055.4 (reference (e)).

5.3.3. Promote efficient and effective use by the DoD Components of intermodal transportation techniques and containerization in the design and construction of new and modified installation and activity transportation equipment and facilities.

5.3.4. Promote a coordinated transportability engineering program between the DoD Components through providing transportability engineering advice and assistance and ensuring the publication of a multi-Service regulation to implement the transportability engineering program as established in Part 6, Section E, of DoD Instruction 5000.2 (reference (c)).

5.3.5. Provide the DoD Components with transportation engineering services, to the maximum extent possible, for identification and evaluation of defense installation and activity transportation engineering needs on an "as requested" basis. These services would include, but not be limited to installation and activity traffic engineering planning and safety studies, transportation system capability studies, port throughput capability evaluations, and other required transportation engineering consultation.

5.3.6. Evaluate the impact of installation and activity transportation engineering improvements on DoD Component transport capabilities on an "as requested" basis.

5.4. The Heads of the DoD Components shall:

5.4.1. Establish a transportability engineering program consistent with reference (c) to integrate effective mobility features into the design and development of new or modified defense materiel and equipment.

5.4.2. Incorporate effective, efficient, and safe transportation engineering techniques and characteristics into DoD transportation processes, equipment, and facilities by ensuring an effective and efficient relationship between the design and development of installation and activity transportation processes, equipment, facilities, and Federal standards commonly accepted in transportation engineering practice.

5.4.3. Support the policies and procedures of this Directive, to include appropriate programming and budget responsibilities, for respective DoD Component installation and activity defense access road needs, protection of defense-essential civil rail lines, and other installation and activity transportation engineering needs.

5.4.4. Ensure multi-Service and U.S. Transportation Command (USTRANSCOM) coordination prior to construction or major modification of common-user defense transportation systems that may affect the movement capability of another DoD Component.

5.4.5. Coordinate with the Commander-in-Chief, USTRANSCOM, or designee, regarding the following common-user transportation engineering issues:

5.4.5.1. Unresolved or other serious conflicts with civil authorities on use of public highway facilities (i.e., disallowed oversize and overweight movements, emergency highway traffic operations, special defense utilization of highways, potential defense traffic damage to public highways, etc.).

5.4.5.2. Designation of STRAHNET and required connector highways for respective installations and activities.

5.4.5.3. Defense access road needs, reporting requirements, and appropriate programming to fund design and development.

5.4.5.4. Analysis that military construction estimates and bids exclude any allowances for repairing damage to highways used in construction of ballistic missile sites when 23 U.S.C. 210 (reference (d)) applies. These allowances shall be separately budgeted and executed.

5.4.5.5. Installations and activities requiring civil railroad access to accomplish their assigned missions.

5.4.5.6. Designation of STRACNET and civil rail lines important to national defense for respective installations and activities.

5.4.5.7. Consideration of defense options to abandonment of connector rail lines to installations and activities and, where no satisfactory alternative for mission accomplishment is found, determination of the essentiality of the connector line.

5.4.6. Coordinate with the Secretary of the Army, or designee, regarding the following DoD Component installation and activity transportation engineering matters:

5.4.6.1. DoD installation and activity transportation engineering issues and the need for transportation engineering consultation services.

5.4.6.2. Requirements for new and improved transportation engineering features in defense transportation processes, equipment, and facilities.

5.4.6.3. Planning, design, and development of major new defense installation and activity modal facilities and need for impact evaluation.

5.4.6.4. Concern for defense installation and activity transportation engineering safety improvements.

5.4.6.5. Need for transportability engineering advice and assistance.

5.4.7. Incorporate efficient and effective use of intermodal transportation techniques and containerization in the design and construction of new or modified installation and activity transportation equipment and facilities.

6. EFFECTIVE DATE

This Directive is effective immediately.

John P. White
Deputy Secretary of Defense

Enclosures - 2

E1. Definitions

E2. Railroad Financial Assistance Criteria

E1. ENCLOSURE 1

DEFINITIONS

E1.1.1. Civil Transportation Agencies. A term used collectively for those organizations that:

E1.1.1.1. Have statutory responsibilities to incorporate DoD requirements into non-DoD, Federal, State, or local transportation programs and regulations involved with highways, railways, ports (both aerial and marine), intermodal systems, inland waterways, coastal and intercoastal waterways, and pipelines; e.g., the U.S. Department of transportation, the Federal Highway Administration, the Federal Railroad Administration, the Federal Aviation Administration, the U.S. Maritime Administration, the Interstate Commerce Commission (ICC), and State and local transportation departments.

E1.1.1.2. Assist in the incorporation of DoD needs into non-DoD transportation programs and regulations; e.g., the American Association of State Highways and Transportation Officials, the Association of American Railroads (AAR), the American Railway Engineering Association (AREA), and similar official transportation groups.

E1.1.2. Defense Transportation System. That portion of the Nation's transportation infrastructure that supports DoD common-user transportation needs across the range of military operations. It consists of those common-user military and commercial assets, services, and systems organic to, contracted for, or controlled by the Department of Defense. Also called DTS.

E1.1.3. DoD Transport System. Organic transportation assets (trucks, trailers, ships, aircraft, railcars, tugs, barges, and containers, etc.) planned and acquired for use in the peacetime and mobilization movement of DoD materiel, equipment, and units.

E1.1.4. DoD Transportation Engineering Programs. The formally established DoD transportation engineering organizations and their assigned responsibilities, to include, but not limited to, the highways, railroads, ports, intermodal systems for national defense programs, and the DoD Component transportability engineering programs.

E1.1.5. Financial Assistance. Monetary aid to civil transportation agencies or rail carriers in consideration for transportation facility design, modification,

construction, lease, or purchase that is determined to be important to the national defense. That assistance must meet eligibility criteria as jointly established by the transportation agencies and the Department of Defense. Those funds can include DoD access road funds or various forms of funding assistance for noneconomically viable rail lines (e.g., traffic surcharge, contract, lease, or purchase).

E1.1.6. Intermodal Systems. Specialized transportation facilities, assets, and handling procedures designed to create a seamless transportation system by combining multimodal operations and facilities during the shipment of cargo (generally standardized intermodal containers) without the need for separate transfer of cargo between modal facilities.

E1.1.7. Railroad Industry. Civil sector organizations involved in rail transportation; e.g., private and Government rail carriers, the AAR, the AREA, the Railway Industrial Clearance Association, and the railway equipment suppliers, etc.

E1.1.8. Transportability Engineering. A transportation engineering technology required to identify and measure limiting criteria and characteristics of transport systems, and to apply this information to the engineering design of new materiel and equipment having a movement requirement. Transportability engineering ensures the design of effective new transport systems and the most efficient use of existing and planned systems for the movement of DoD materiel, equipment, and units.

E1.1.9. Transportation Engineering. The science of evaluating the requirements for, and planning the layout and functional aspects of, transportation equipment and facilities to develop the most efficient operating relationships pertaining to traffic movement patterns, transportation processes, and availability and usability of equipment and facilities to ensure adequate, safe, and economical transport by all modes.

E1.1.10. Transportation Facilities. The national transportation infrastructure (including fixed plant and materiel handling equipment) encompassing highway, railway, port (both aerial and marine), intermodal, inland waterway, coastal and intercoastal waterways, and pipeline systems that are impacted by DoD peacetime or mobilization requirements and are necessary for national defense.

E2. ENCLOSURE 2

RAILROAD FINANCIAL ASSISTANCE CRITERIA

Financial assistance can be offered by the DoD Executive Agent on behalf of the DoD Component for a civil sector rail line only when ALL of the following conditions exist:

E2.1.1. The rail line is required to accomplish the mission assigned to a DoD installation or activity.

E2.1.2. The civil sector requests financial assistance to prevent abandonment of the rail line.

E2.1.3. The ICC abandonment proceedings or other analyses show that the rail line is not viable economically without assistance.

E2.1.4. The DoD Executive Agent has not found a combination of other shipper and civil funding adequate to cover requested and negotiated assistance.

E2.1.5. The DoD Component formally announces that the rail line is both essential and that funding shall be made available to participate in the requested assistance, subject to normal Executive and Congressional review, in accordance with 10 U.S.C. 2672 and 2672a (reference (f)), or the terms of specific authorization or appropriation acts.